

**HADRONIC-TIME RELATIVITY: 28X28 METRIC TENSOR FORM OF
CALENDAR (DAY/MONTH/YEAR) REPRESENTATION OF EVERYTHING**

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Abstract

Recent mathematical, theoretical and experimental studies have confirmed the exact validity of quantum mechanics for point-like particles in vacuum under linear, local and potential interactions, as occurring for electromagnetic interactions. The same studies have established a progressive generalization of Heisenberg's uncertainties according to the 1935 Einstein-Podolsky-Rosen (EPR) argument, with a corresponding recovering of Einstein's determinism for extended particles in deep mutual entanglement with ensuing non-linear, non-local and non-potential interactions, as occurring for extended hadrons under strong interactions. In a recent paper we indicated, one of novel advances in condensed matter physics and chemistry that are expected from the "completion" of quantum into hadronic mechanics according to the EPR argument. In particular, we presented an apparently new form of superconductivity, submitted for the first time under the name of "Hadronic Conductivity" consisting in the propagation of electron pairs (rather than individual electrons) in singlet coupling with "attractive" EPR entanglement, and ensuring the Meissner effect (null magnetic field with consequential reduction of the resistance). In this follow-up paper, we present, under the name "Hadronic-Time Relativity": 28x28 metric tensor Form of Calendar (Day/Month/Year) Representation of Everything. An example is provided by a (cube-hexagon) quasi-crystal system of a vibrating helix of (curl and loop) geometry of a membrane (~M-branes) of the cubic box, like Schrodinger "cat" of gravity($g \sim 7$)mass(~ 52)=59="branes(59)", and the implications for such a system is discussed..

KEY WORDS: EPR arguments with respect to "determinism" in quantum mechanics, condensed matter physics and chemistry and the "completion" in "hadronic" mechanics; unified geometry of matter, anti-matter and light, string theory of everything. SO(2N) algebraic projective geometry and tensors.

OUTLINE

1. INTRODUCTION AND REVIEW
2. METHODOLOGY OF ANALOGUE/DIGITAL CONSTRUCTION OF CALENDAR (DAY/MONTH/YEAR) HADRONIC-TIME RELATIVITY METRIC TENSOR
3. AB/CD/TXYZ ~DAY/MONTH/YEAR ON EARTH AS WARPED $R^3 \times SO(3)$ TIME-SPACE
4. DISCUSSION & CONCLUSION
5. REFERENCES

1. INTRODUCTION AND REVIEW

Despite Advances with Unitary Scattering Theory of Point-Particles in Conventional Quantum Mechanics, a number of fundamental Problems have long been identified & partially tackled:

- Replacement of Infinities in quantum scattering formalism *ab initio* by convergence (Dirac 1981 [1]) & tackling imaginary potentials in Dissipative Nuclear Models by non-unitary theory.
- Need to replace Linear Character of quantum mechanics by Nonlinear character of nature (W. Heisenberg cited by R.M. Santilli 1978 [2])
- Einstein, Podolsky and Rosen (EPR) 1935[3] expression of doubts about “lack of completion of quantum mechanics” which underscores the motivation for this paper.
- Suggestions by R.M. Santilli 1978 [2] for construction of Nonunitary Covering of Quantum Mechanics under the name Hadronic Mechanics (HM)
- Non-unitary Lie-isotopic & Lie-admissible scattering theory of HM (Santilli & Animalu 2011[4])
- A.O.E. Animalu 2019 [5] -Lie-Admissible Approach to “Extended Relativity”: Non-Linear Velocity, Mass and Charge Transformations in *African Journal of Phys. Vol.12, p.2-27 (2019)* [reformatted from *Hadronic J. Vol.10, 321-330(1987)*]
- Due to the dimension and diversification of the existing literature in the EPR argument , prior this paper, interested colleagues should view Nine minutes video on EPR verifications, <http://www.world-lecture-series.org/legacy-of-einstein-for-new-clean-energies>
Tutoring Lecture I: Isomathematics <http://www.world-lecture-series.org/santilli-tutoring-i>
Tutoring Lecture II: Verifications of the EPR argument
<http://www.world-lecture-series.org/santilli-tutoring-ii>

Primary references on recent verifications of the EPR argument

<http://www.santilli-foundation.org/docs/references-epr-verifications.pdf>

- A.O.E. Animalu 2022 [6] Hadronic Conductivity: A New Form of Superconductivity, *Hadronic J. Vol.45,333-355(2022)*

- Albert Einstein (1999) [7] celebration as "PERSON OF THE CENTURY" (in Time Magazine , Dec 31, 1999) & in trending (www.thejourney.com) Einstein's equation ($\text{Energy} = \text{Love} \times \text{square of speed of light}$)

In a previous paper [6] we have, on the strength of the EPR Argument, developed in the framework of hadronic mechanics, both a theoretical physics (e-magnetodynamics framework of current loops) and linguistic (analogue/digital) SO(10) realizations of a principle of trichotomy between the three objects (points, lines, planes) of projective geometry of space-time and the three elements (particles, fields, currents) of gauge principles of classical and quantum mechanics. The most important aspect was the implication of trichotomy of "time-relativity" in real $R^3 \times SO(3)$, therein called T-symmetry, namely that it is discretely positive but non-linear and irreversible *vis-à-vis* " $\text{Energy} = \text{Love} \times \text{Square of Speed of Light}(c)$ " unified theory of energy generation in everything in Einstein's Secret 1938 Letter to his daughter (Lieserl) released in 1980 and reported by Brandon Bays www.thejourney.com [7] as "God is Love"; "Love is the quintessence of universal energy generation ..."; etc. The significance of T-symmetry was correlated in [6] with the trichotomy of world war dates (DAY/MONTH/YEAR) in analogue/digital SO(10) linguistics which we shall elaborate as a methodology for a vibrating helix of (curl and loop) geometry of a membrane (~M-branes) of a cubic box in Sec.2 of this paper consistent with Einstein's secret letter by going beyond 4-dimensional space-time and the M-theory [8] of an 11-dimensional world filled with weird objects called "branes" inasmuch as "*M stands for many things including matrix, mystery and magic*" and in this paper "branes(59)" is cognate to "e-love(59)" and to "g-mass(59)" in SO(10) linguistic geometry.

To further underscore the question that led to the above scenario of 28×28 metric tensor in this era of search for the string theory of supergravity, called the M-theory, as well as unified field theory of gravity and its further development into the superstring theory of everything[9], let me recall an interaction in 1968 with P.A.M. Dirac 1970[10] while he was searching for a Maxwell-like (dual) gauge principle to relate electric charge and magnetic charge in projective geometric terms.

Following treatment of the Lorentz force and the linear Dirac (negative) energy relativistic wave equation for electric charge on the same footing as a corresponding dual of Lorentz force and a positive energy relativistic wave equation for magnetic charge and non-negative mass (represented by a current loop), Dirac's way of thinking led (as summarized below) to a correspondence principle:

Particle \longleftrightarrow Point, Field \longleftrightarrow Line, Current \longleftrightarrow Plane,

Such a correspondence principle implies geometric characterization of conventional electrodynamics and an analogous so-called e-magnetodynamics of current loop and to the Feynman space-time diagrammatic approach based on 10×10 representations of the dynamical group unifying strong interaction with electromagnetism and space-time geometry and violations of the discrete symmetries – parity(P), charge(C) conjugation, time-reversal(T) and spin-parity to point-plane dual interchange,

$$SU^+(3) \times SU^-(3) \times U^+(1)U^-(1) \times O^+(4,2) \times O^-(4,2)$$

This defined our $SO(2N) \times SO(2N)$ group-theoretic approach to scattering of N-particle (N=5) systems presented[11] in <http://doi.org/10.52202/059404-0001> which we have elaborated and distinguished from the "trichotomy" of Minkowski space of "extended relativity" $R^3 \times SO(3)$ and

$U(2) \times SU(2)$ of elementary particles in Dirac's 1971 [1] $SO(2N)$ second quantization scheme for condensed matter physics and chemistry with $SO(10)$ linguistic geometry of two liquid water[12] molecules ($2H_2O$) as reactant "hydroxil ion" in oxonium(H_3O^+) + hydroxide(OH^-) states.

To gain familiarity with the $SO(10)$ group theoretic structure of metric tensor we summarise (in table 1 below) the conventional magic square representation of the metric tensor in $O(4,2) \times SU(3) \times U(1) \sim SO(10)$ Lattice gauge theory.

The diagram illustrates the trace of square submatrices for $n=3, 4, 5$. It shows magic squares of these sizes and their corresponding submatrices, along with the formula for the trace: $n(n^2+1)/2$.

3x3 Magic Sqs

2	7	6
9	5	1
4	3	8

4x4 Magic Sq

16	3	2	13
5	10	11	8
9	6	7	12
4	15	14	1

5x5 Magic Sq

11	24	7	20	3
4	12	25	8	16
17	5	13	21	9
10	18	1	14	22
23	6	19	2	15

4x4 Magic Sq

16	3	2	13
5	10	11	8
9	6	7	12
4	15	14	1

5x5 Magic Sq

16	3	2	13	
5	10	11	8	
9	6	7	12	
4	15	14	1	
				1

Trace Calculations:

- For $n=3$: $15+15+34 = 64$
- For $n=4$: $65+34+1 = 100$

Table1 Trace of Square submatrix is $n(n^2+1)/2 = 15, 34, 65$ for $n=3,4,5$

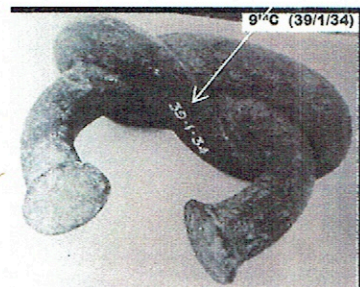


Fig.1(a): Manilla-shaped ("M-Branes") with 9th C date (39/1/34)

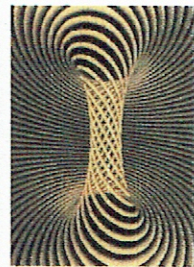


Fig. (1b) N-Helix

Accordingly, in this paper, we shall construct a 28x28 metric tensor that characterizes a Manilla-shaped artifact with 9th C date 39/1/34 (in Fig1a) which is here called "M-Branes(72)" cognate to "Hadronic(72)" ~ "N-Helix(72)" ~ "Lover(72)" in SO(10) linguistics of Calendar (Day/Month/Year) ~ (AB/CD/TXYZ) geometry and requires a generalization of the space-time metric tensor correspondence with Maxwell's 4x4 tensors

$$\|R^k_{\mu\nu}\| \equiv \begin{pmatrix} 0 & t_1 & t_2 & t_3 \\ -t_1 & 0 & z & -y \\ -t_2 & -z & 0 & x \\ -t_3 & y & -x & 0 \end{pmatrix} \longleftrightarrow \begin{pmatrix} 0 & E_x & E_y & E_z \\ -E_x & 0 & B_z & -B_y \\ -E_y & -B_z & 0 & B_x \\ -E_z & B_y & -B_x & 0 \end{pmatrix} = \|F^k_{\mu\nu}\|$$

of electromagnetism and e-magnetodynamics

Conventional Electrodynamics

$$\|F_{\mu\nu}\| \equiv \begin{pmatrix} 0 & E_1 & E_2 & E_3 \\ -E_1 & 0 & B_3 & -B_2 \\ -E_2 & -B_3 & 0 & B_1 \\ -E_3 & B_2 & -B_1 & 0 \end{pmatrix}$$

Maxwell's eqn & Lorentz force

$$\partial^\nu F_{\mu\nu} = J_\mu^e; \mathbf{f}^e = e\mathbf{E} + \mathbf{J}^e \times \mathbf{B},$$

$$\mathbf{E} \rightarrow \mathbf{B}, \mathbf{B} \rightarrow -\mathbf{E}, \mathbf{J}^e \rightarrow \mathbf{J}^m$$

E-magnetodynamics of Current Loop

$$\|G_{\mu\nu}\| \equiv \begin{pmatrix} 0 & J_1 & J_2 & J_3 \\ -J_1 & 0 & B_3 & -B_2 \\ -J_2 & -B_3 & 0 & B_1 \\ -J_3 & B_2 & -B_1 & 0 \end{pmatrix}$$

$$(\mathbf{J}^m \rightarrow \mathbf{B}, \mathbf{B} \rightarrow -\mathbf{J}^m)$$

$$\mathbf{J}^m = -(2e\hbar/mc)\mathbf{A}, \mathbf{B} = \text{curl}\mathbf{A} \equiv \text{curl}(\zeta\mathbf{J}^m),$$

$$\zeta = (mc/2|e|\hbar)$$

$$\text{Det}\|F_{\mu\nu} - \lambda\eta_{\mu\nu}\| \equiv \lambda^4 - (R_{\mu\nu\rho\sigma}F^{\mu\rho}F^{\nu\sigma})\lambda^2 + (\epsilon_{\mu\nu\rho\sigma}F^{\mu\rho}F^{\nu\sigma})^2 = 0,$$

$$\text{Det}\|G_{\mu\nu} - \lambda\eta_{\mu\nu}\| \equiv \lambda^4 - (R_{\mu\nu\rho\sigma}G^{\mu\rho}G^{\nu\sigma})\lambda^2 + (\epsilon_{\mu\nu\rho\sigma}G^{\mu\rho}G^{\nu\sigma})^2 = 0,$$

$$\|\eta_{\mu\nu}\| \equiv \text{diag}(+1, -1, -1, -1), R_{\mu\nu\rho\sigma} \equiv (\eta_{\mu\nu}\eta_{\rho\sigma} - \eta_{\mu\rho}\eta_{\sigma\nu}),$$

$$R_{\mu\nu\rho\sigma}F^{\mu\rho}F^{\nu\sigma} - 2\epsilon_{\mu\nu\rho\sigma}F^{\mu\rho}F^{\nu\sigma} = \begin{cases} \mathbf{E}^2 \\ \mathbf{B}^2 \end{cases} \Rightarrow \begin{cases} \mathbf{E}^2 - \mathbf{B}^2 \pm 2\mathbf{B} \cdot \mathbf{E} = 0 \\ \mathbf{B}^2 - \mathbf{E}^2 \pm 2\mathbf{E} \cdot \mathbf{B} = 0 \end{cases}$$

$$R_{\mu\nu\rho\sigma}G^{\mu\rho}G^{\nu\sigma} - 2\epsilon_{\mu\nu\rho\sigma}G^{\mu\rho}G^{\nu\sigma} = \begin{cases} \mathbf{J}^{m2} \\ \mathbf{B}^2 \end{cases} \Rightarrow \begin{cases} \mathbf{J}^{m2} - \mathbf{B}^2 \pm 2\mathbf{B} \cdot \mathbf{J}^m = 0 \\ \mathbf{B}^2 - \mathbf{J}^{m2} \pm 2\mathbf{J}^m \cdot \mathbf{B} = 0 \end{cases}$$

Note that the **current loop** \mathbf{J}^m , involves **e/m**, and this insures the **Meissner effect** ($\mathbf{J}^m \cdot \mathbf{B} \neq 0$)

This will led to the following digital/analog relations in SO(10) Linguistic geometry:
N-helix(72) Loops(77) ~ M-branes(72)Loops(77) ~ Hadronic(72)power(77) ~ Environment(149)
as realized in Figs.2, 3 & 4 below;

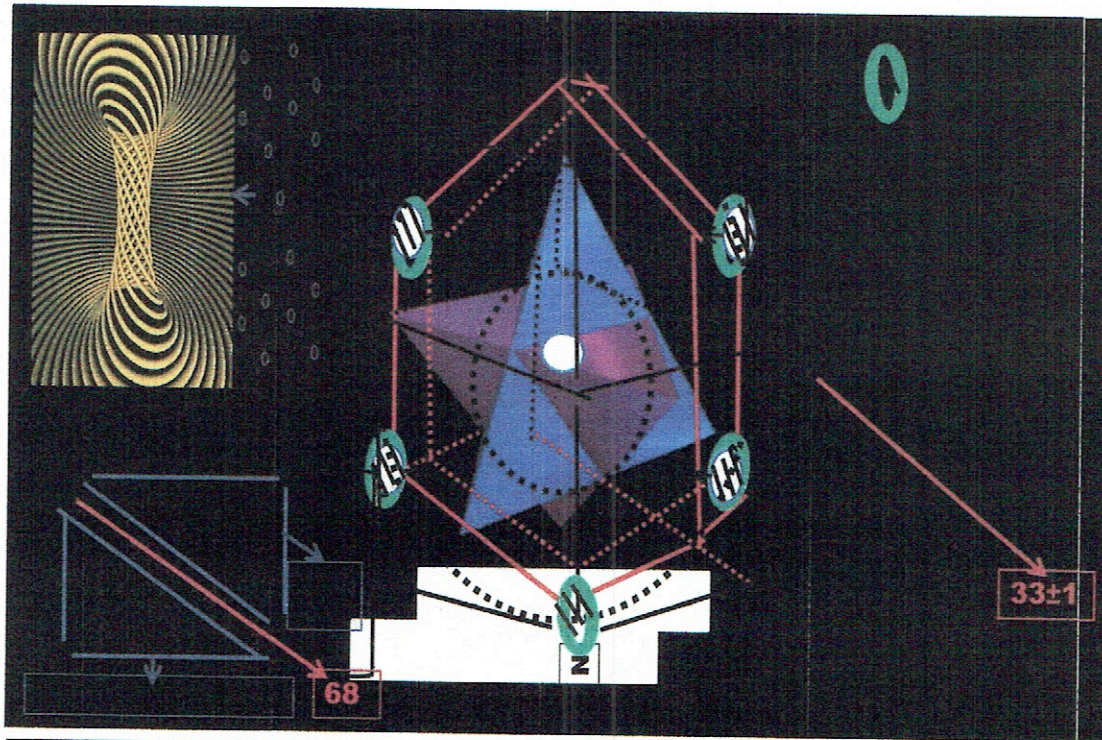


Fig.2(i) Realization of hadronic-unified 4x4 metric tensor as given by electric ($E=2,-7,9$) & magnetic ($B=2,-7,5$) 6-vector components, such that $E \cdot B = \pm 4$ animated as "pillar of water" ; (ii) A Super array of magnetic poles & pivoted slab of soft iron in e-magnetodynamics machine (Animalu *et al* 2013) [12] animated as array of magnetic poles with pivoted slab replaced by Kepler's 6-star vortex. The number of (points+lines+planes) are: Pillar(68), Cube (26), Vortex($7 \times 6 = 42$), Hexagon(38) & $34 + 38 = 72$ ("hadronic") & $42 + 38 = 80$ ("A Super") Systems.

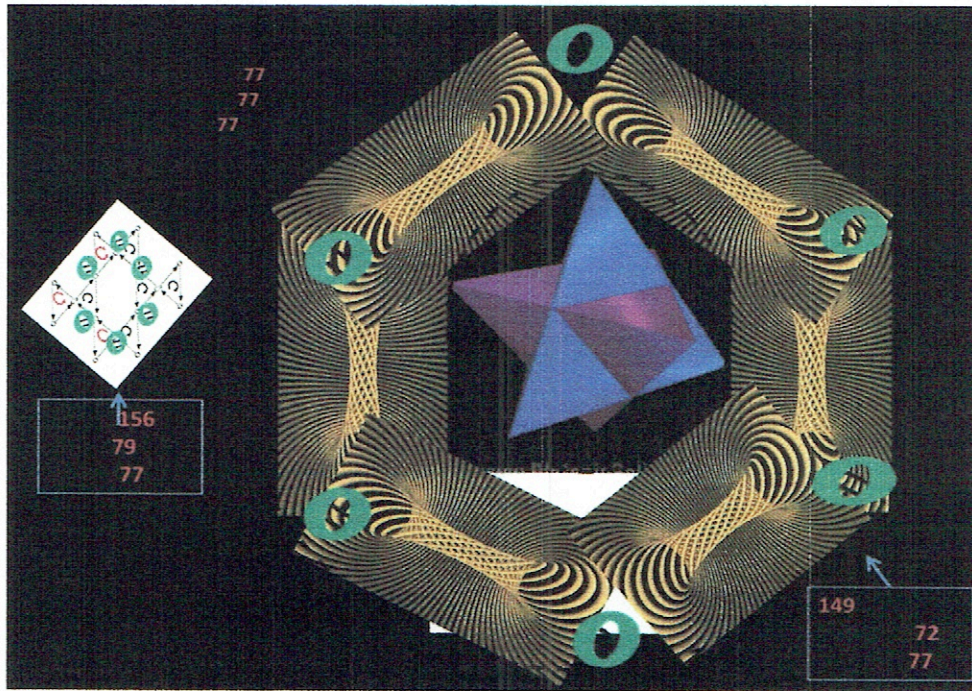


Fig. 3: Realization of Hadronic and Super-Power Geometry of e-magnetodynamics

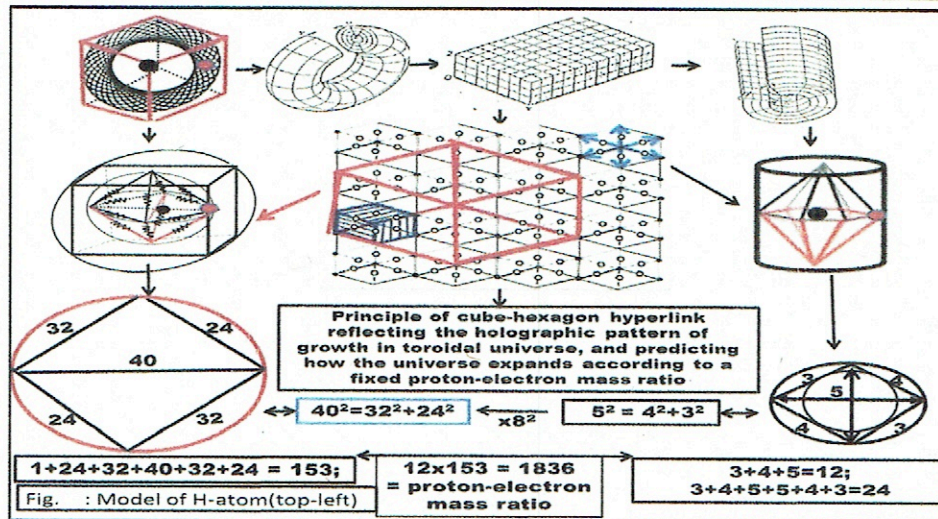
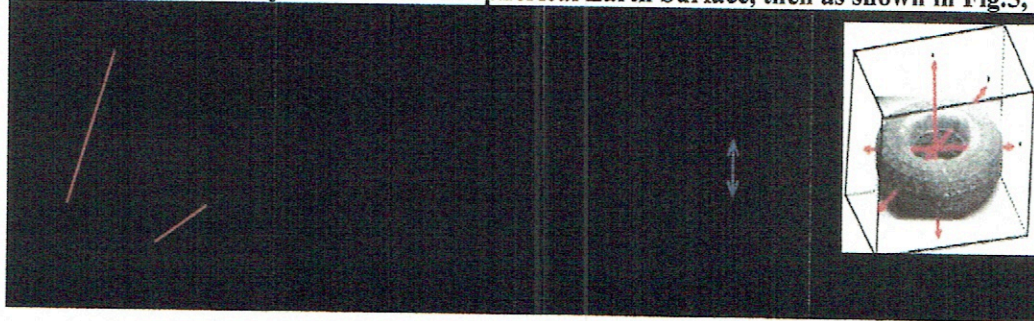


Fig. 4: The introduction of mass ratio in geometry is reflected by ref.[13]: A.O.E.Animalu, Samuel Edeagu, Godfrey Akpojotor & Erik Trell, Electromagnetism of Atomic Structural Constitution in Deformable Real $R^3 \times SO(3)$ Configuration Space. Afr. J. Phys. 11. 2 (2018).

2. METHODOLOGY OF ANALOGUE/DIGITAL CONSTRUCTION OF CALENDAR (DAY/MONTH/YR) TIME RELATIVITY METRIC TENSOR

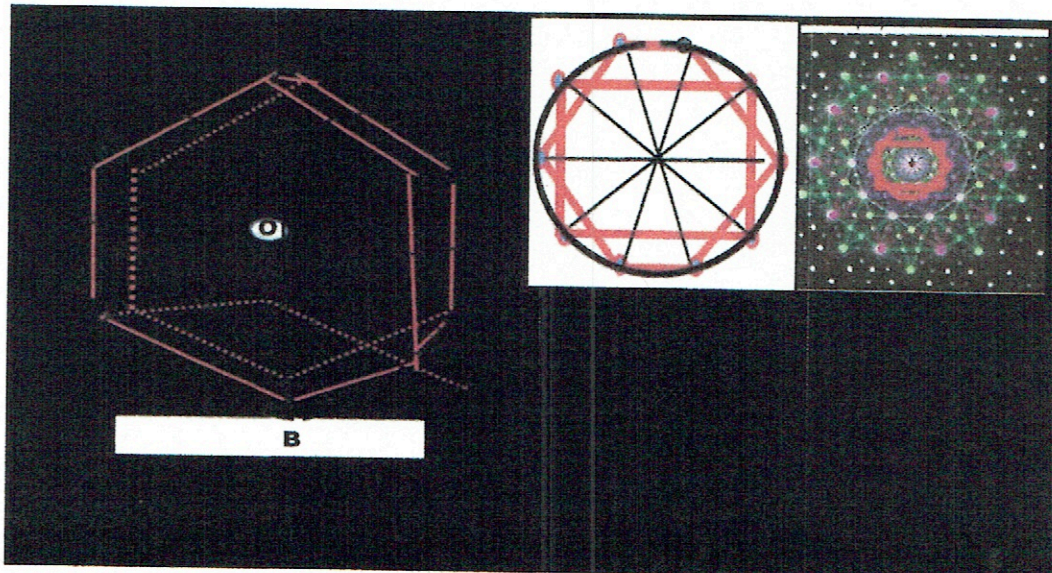
If AB/CD/TXYZ ~ Day/Month/Year on spherical Earth Surface, then as shown in Fig.5,



then ABC, ACD, ABD are projective "plane coordinates" & BCD is the "timeless" plane on Earth with "cyclic" radius(T) such that,

$$T^2 = c^2 (t_1^2 + t_2^2 + t_3^2)$$

form a 6-vector (T,R), and (T,R) ~ (E,B) of electromagnetism. Such a 6-vector space-time, referred to as R3xSO(3) symmetry, has a "Warped (Cube-Hexagon) Time-Space geometry", represented by 3-dimensional grid map (Fig.6).



The warping geometry of the quasi-crystal diffraction pattern is like the Igbo-Ukwu bronze torus and Manilla-shaped artifact of 9th C date (39/1/34) and step-pyramid fly-shaped pattern correlated in the realization of step-pyramid definition of R3xSO(3) Linguistics as presented next in Fig.7

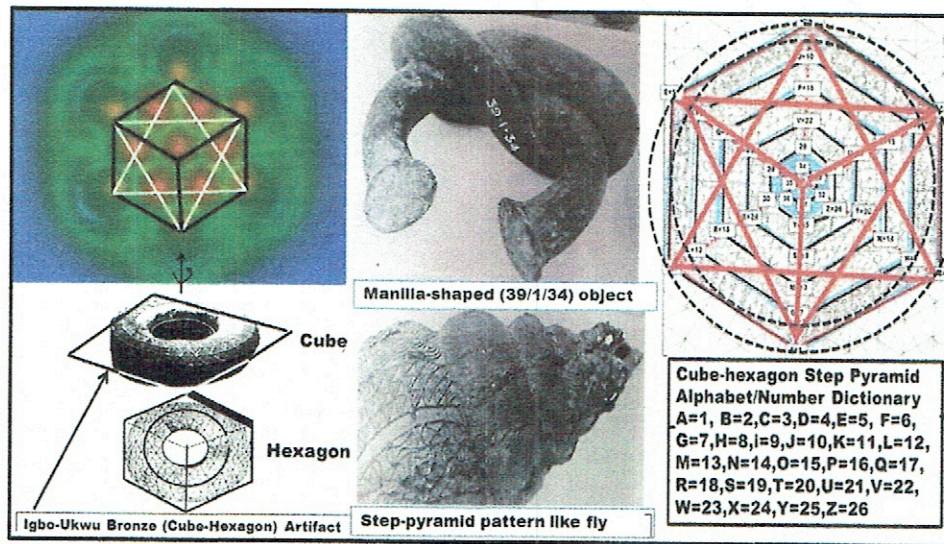


Fig.7: The quasi-crystal diffraction pattern (top left) transcends the bronze Torus (cube-hexagon)artifact (bottom left) alongside the 9th C Manilla-shaped object dated (39/1/34) and step-pyramid fly pattern which are Igbo-Ukwu artifacts in Elizabeth Isichei[14] *A History of the Igbo People*(1976). These lead to the Cube-hexagon pyramid Alphabet/Number dictionary of GENO-ASCII Code given by A.O.E. Animalu & A.V.Animalu[15] in Afr. J. Physics Vol. 5. 122-140(2012).

The interest of the 9th C Calendar Date (39-1-34) on the Manila-shaped object lies in providing a motivation for the digital aspect of the step-pyramid-alphabet number dictionary of the GENO-ASCII Code, (A=a=1, B=b=2, ... , Z=z=26) and $1+2+3+...+36=666$ for closure in SO(10) linguistic geometry in which "Word ~ W+o+r+d=23+15+18+4=60 can be written as "Word(60)" and "A membrane" = "M-branes(72)". Consequently, just as Einstein's cosmic religious aphorism contained in his secret letter on "*Energy=Love x square of the speed of light(c)*" linked war date Calendar (Day/Month/Year) to Life(32)Language(68)=100 as well as War(42)date(30)chaos(46)=118 (as in the table below), the 9th C date (39/1/34) on the Manilla-shaped membrane that folds and curls links the corresponding numbers $39+1+34=74$ and $39+1+3+4=47$ to Energy(74)Time(47)=121=11x11 metric tensor of 11-dimensionoal world filled with weird objects, called branes(59) = e(5)-love(54) which one can associate with current loop on a membrane with a magnetic charge, $g = \frac{hc}{e^2} = 137 = \text{lover}(72)\text{music}(65)$.

● Date of 1st World War

28 / 7 / 1914

$$28 + 7 + 19 + 14 = 68$$

$$2 + 8 + 7 + 1 + 9 + 1 + 4 = 32$$

$$28 + 7 + 1 + 9 + 1 + 4 = 50;$$

$$68 + 32 = 100$$

$$68 + 50 = 118$$

● The Second World War date

1 / 9 / 1939

$$1 + 9 + 19 + 39 = 68$$

$$1 + 9 + 1 + 9 + 3 + 9 = 32$$

$$; 68 + 32 = 100$$

○ Date of Ukraine war

24 / 2 / 2022

$$24 + 2 + 20 + 22 = 68$$

$$24 + 2 + 2 + 0 + 2 + 2 = 32$$

$$; 68 + 32 = 100$$

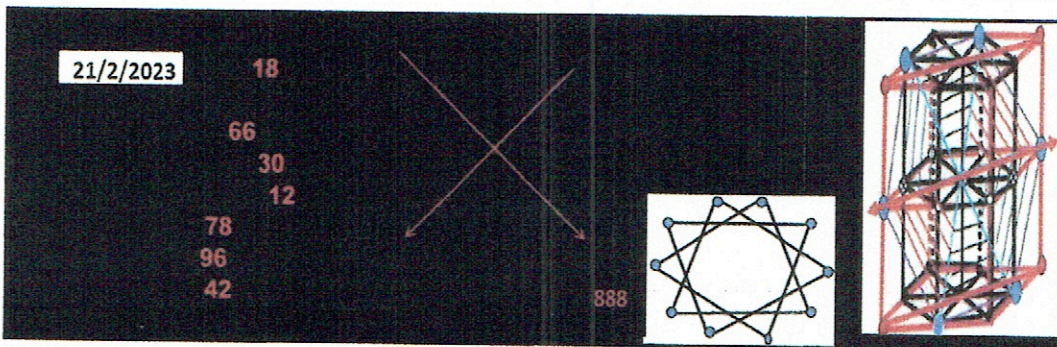
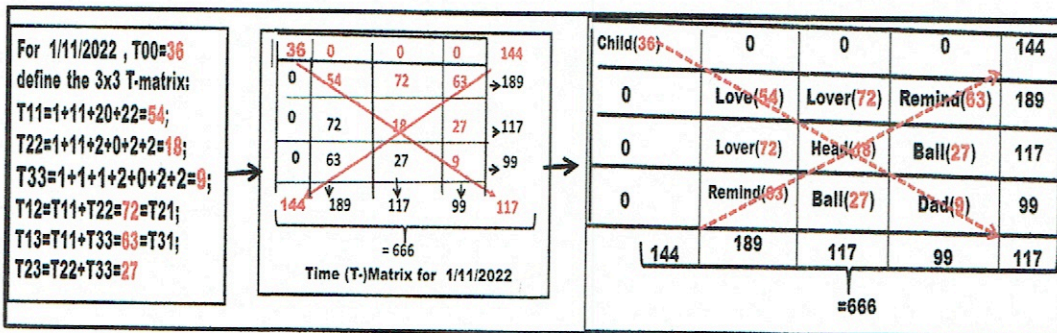
$$2 + 4 + 2 + 20 + 22 = 50;$$

$$68 + 50 = 118$$

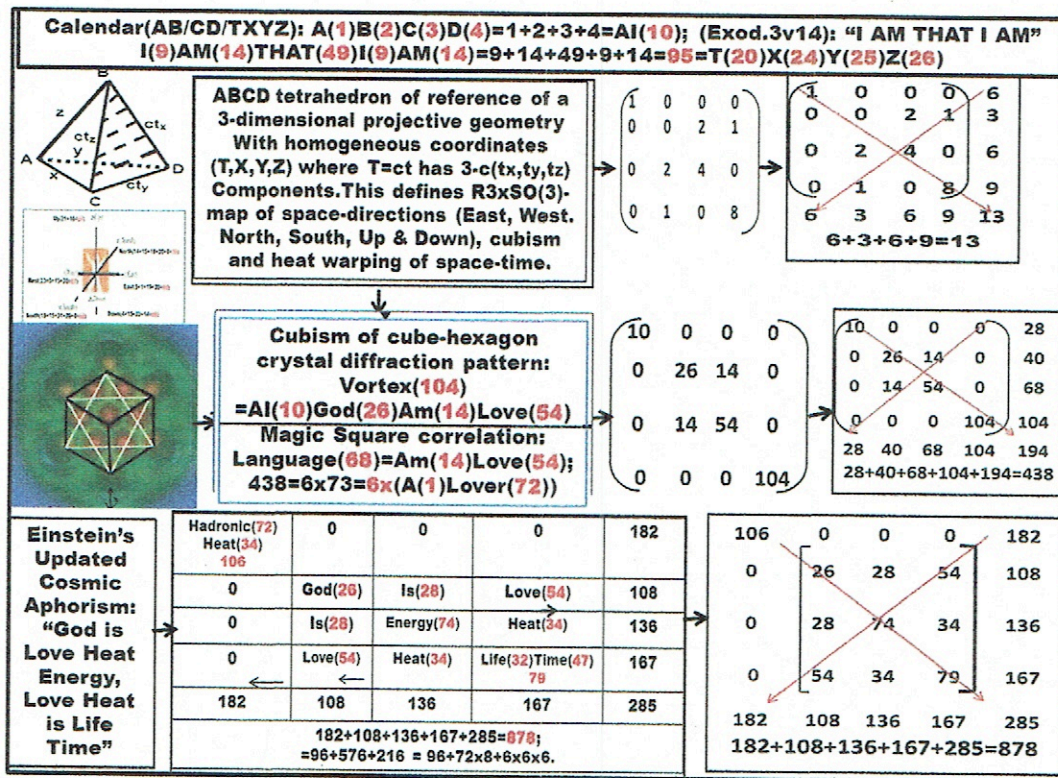
● Date on 9th C Igbo-Ukwu Manilla-shaped object 39/1/34:

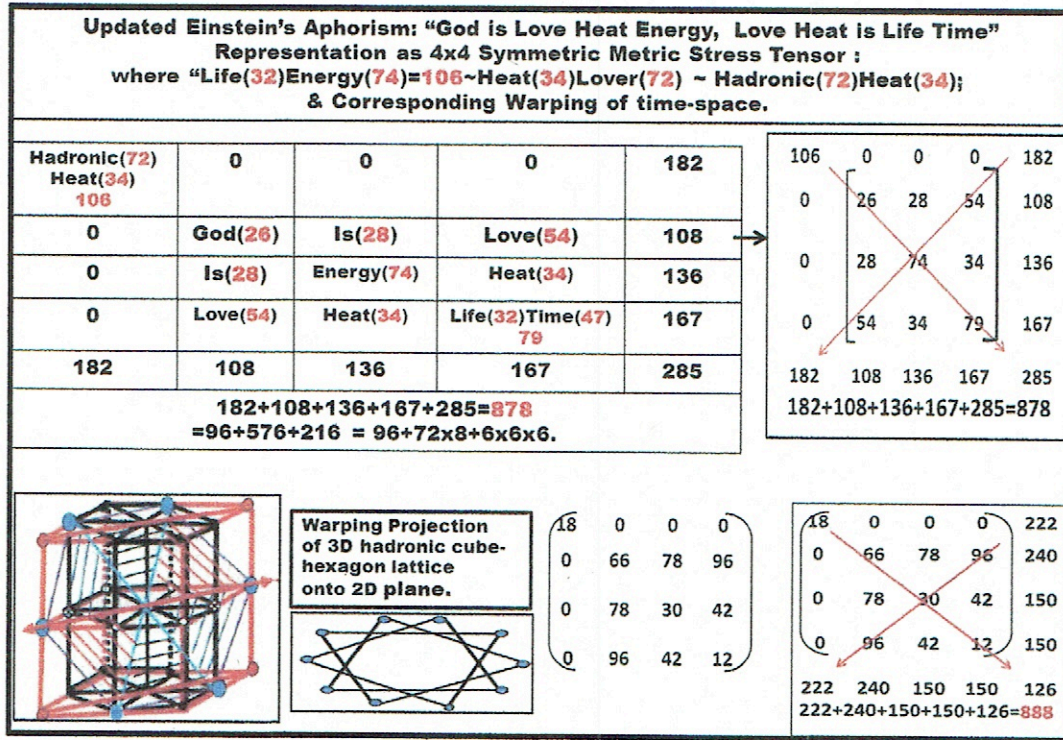
$$39 + 1 + 34 = 74, 39 + 1 + 3 + 4 = 47, 3 + 9 + 1 + 1 + 3 + 4 = 21, 21 + 47 = 68, 74 + 47 = 121.$$

A summary of such correlations of metric tensor with Calendar dates is given here for the date 1/11/2022 and 1st year 21/2/2023 reminder of the Ukraine War and the projection of 3D hadronic cube-hexagon onto a 2D plane that characterizes the relations, $888 = 666 + 222 = 882 + 216 + 6$.



The impressive result of this “magic square” correlation is that it gives the Judeo-Christian “sacred” number (666) for predicted catastrophic change of human consciousness called “Rapture(99)” and $882=216+666$ correlates it with $216=6 \times 6 \times 6 = 20+56+70+70^*$ related to the fundamental representation of the SU(6) symmetry of constituent quarks of the proton(three-quark) building blocks of matter in the universe while $10 \times 216=2160$ is the cycle (in years) of the cross-road predicted by ancient cultures for the same catastrophe. $888=666+216+6=666+222$ Moreover, $882+666=666+216+666=1548$ is the date of publication of the book *Revolutions*, written by Nicholas Copernicus that gave birth to *Renaissance* in 16th C Europe. By combining such correlation with Biblical(Exod.3v14) record of human consciousness of daily rest energy(74), and weakly, $7 \times 74=518$, we have achieved an elaboration of step-by-step construction of 28x28 matrix from seven 4x4 symmetric metric tensors for “hadronic” time relativity as follows:

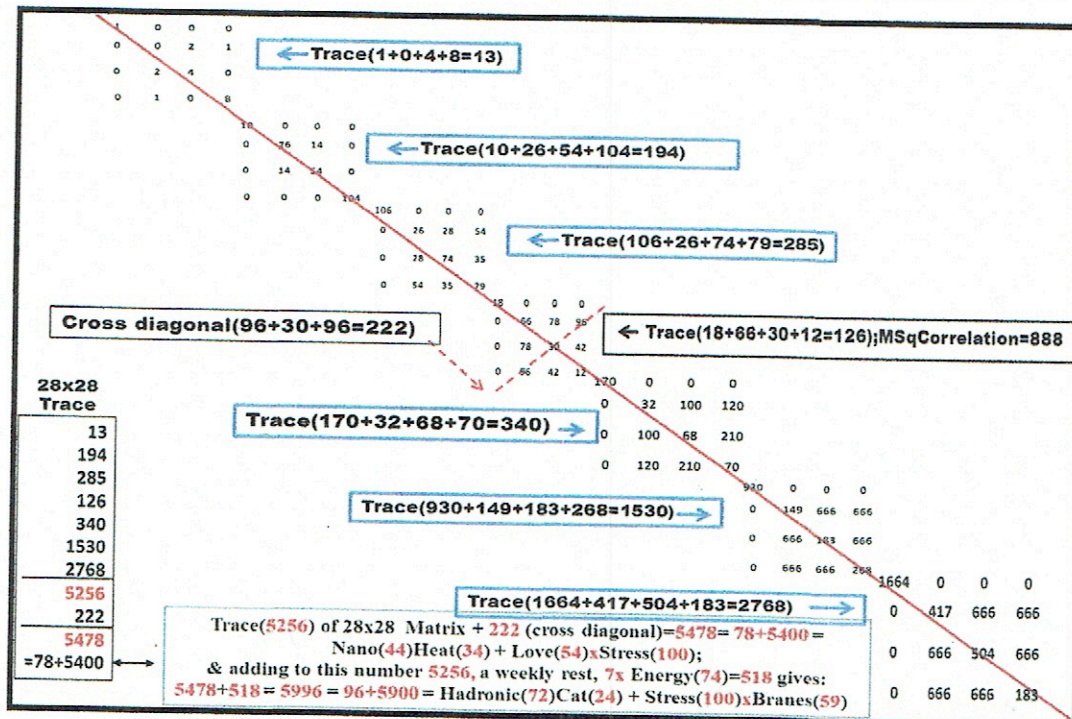
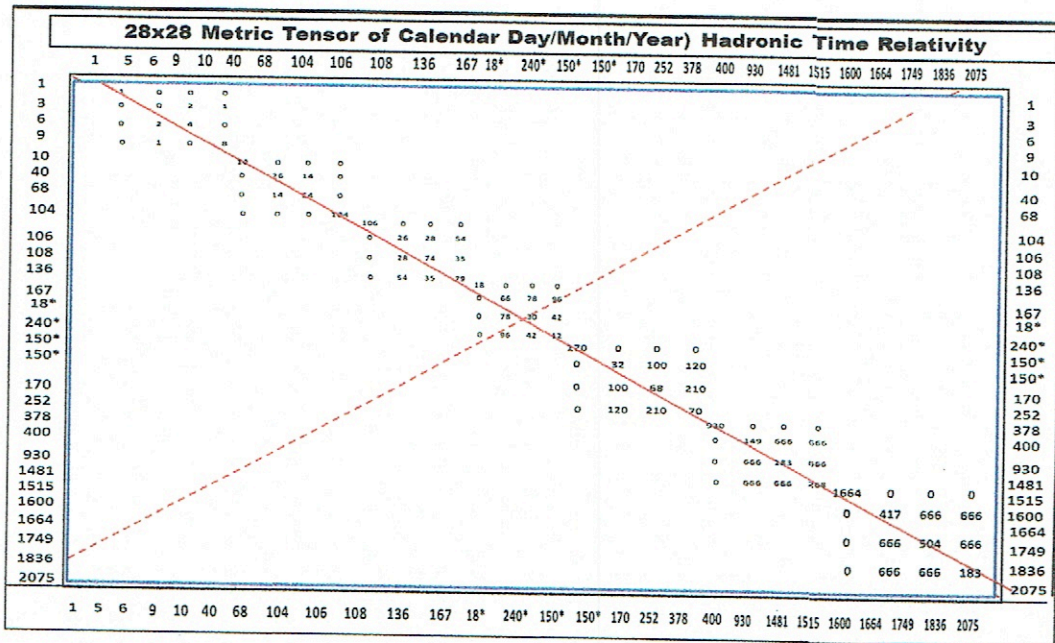




Proceeding in this way, we have constructed the 28x28 symmetric metric tensor consisting of positive numbers from a selection of seven 4x4 matrices arranged in the same manner as the "magic square" representation of the metric tensor in $O(4,2) \times SU(3) \times U(1) \sim SO(10)$ Lattice gauge theory presented earlier. The primary interest is to correlate various dated (archival) materials with geometry so as to endow the methodology with predictive capacity in the ranges from 0 to 170 (Ancient Egypt) and 170 to 2075 (Judeo-Christian till 2012 New Age cross-over to the "Hadronic(72) ~ COVID-19 era and beyond). Quantum mechanics will demand characterization of End-Time(70)Stress(100) on Schrodinger "Cat" consciousness from the trace of the 28x28 metric tensor arranged and elaborated below as seven 4x4 matrices so that the 4th in the sequence characterizes the (888=666+222) warping of (cube-hexagon) time-space as follows:

Trace(5256) of 28x28 Matrix + 222 (cross diagonal)=5478= 78+5400 =
 Nano(44)Heat(34) + Love(54)xStress(100);
 & adding to this number 5256, a weekly rest, 7x Energy(74)=518 gives:
 5478+518= 5996 = 96+5900 = Hadronic(72)Cat(24) + Stress(100)xBranes(59)

This is the result we are after, as summarized in the two complementary tables below:



The primary features of the correlation are, firstly the addition of the Nano(44)Heat(34) to Love(54)xStress(100), where

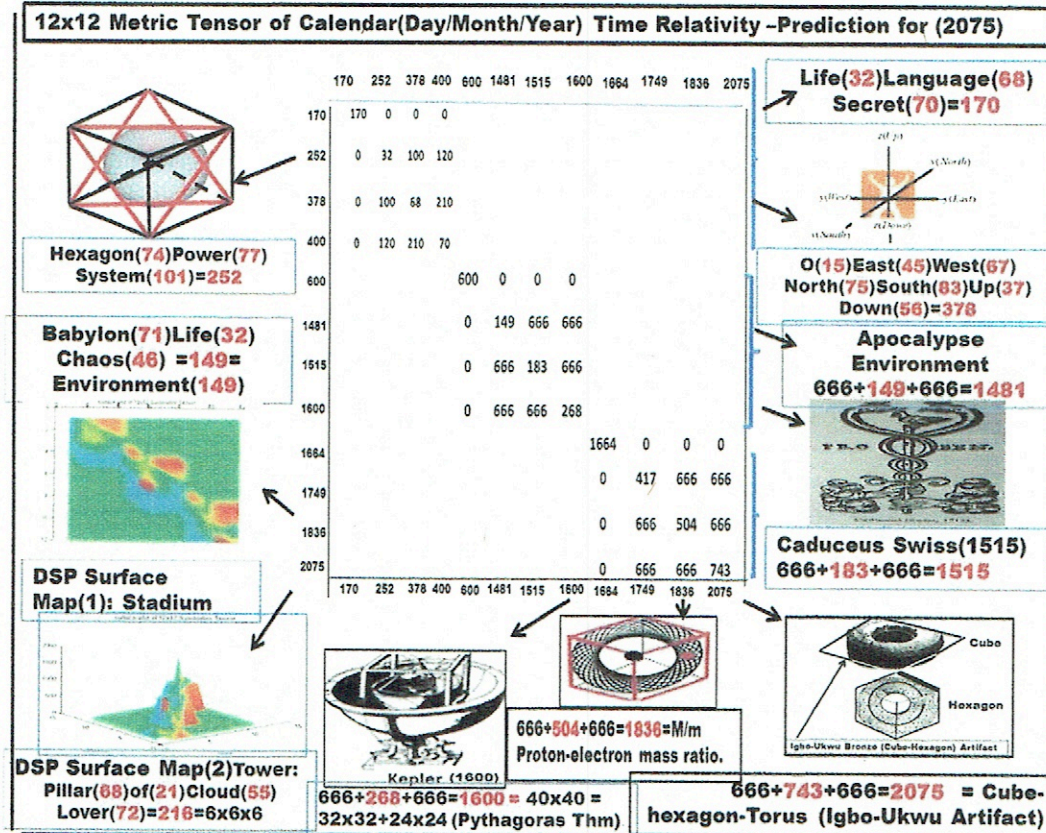
$$\text{Nano}(44)\text{Heat}(34)=78=e(5)\text{lover}(72)\sim e(5)\text{Hadronic}(72)=\text{Anti}(44)\text{Hate}(34)$$

by noting that "Heat(34)=34" is cognate to "Hate(34)".and Nano(44) is cognate to Anti(44). Secondly, it underscores the reliance on seven symmetric and positive definite 4x4-matrices for calendar(AB/CD/TXYZ) correlating Day/Month/Year on Earth and dual linguistic geometric elements (ab/cd/txyz) of lattice gauge theory so that pairing(p~16) is associated with the geometric element (A+a,B+b,C+c,D+d)/(T+t,X+x,Y+y,Z+z) in the transition from ASCII to GENO-ASCII Code and hence rest Energy(74)=p(16)Asleep(58).has mass(52)=p(16)field(36). Thirdly, the necessity of updating Einstein's cosmic aphorism to include the time in the "secret equation, "Energy = Love x square of the speed of light" has permitted inclusion of the weekly rest(t=0) energy(74) of 7x74=518 as the trace of seven rest frame diagonal 4x4 metric tensors. ..

The primary interest of the range 170 to 2075 is that it defines a sub-group of three 4x4 matrices forming a 12x12 metric tensor beyond the M-theory of 11-dimensions of interest to experiments at giant particle colliders in the US and Europe.

	170	252	378	400	600	1481	1515	1600	1664	1749	1836	2075
170	170	0	0	0								
252	0	32	100	120								
378	0	100	68	210								
400	0	120	210	70								
600					600	0	0	0				
1481					0	149	666	666				
1515					0	666	183	666				
1600					0	666	666	268				
1664									1664	0	0	0
1749									0	417	666	666
1836									0	666	504	666
2075									0	666	666	743
	170	252	378	400	600	1481	1515	1600	1664	1749	1836	2075

To underscore the interest of the range 170 to 2075, the correlation of the Digital Signal Processing (DSP) maps of the 12x12 metric tensor with various archival artifacts have been assembled as displayed below



4. DISCUSSION & CONCLUSION

Having shown how the unification of electromagnetism with e-magnetodynamics was realized[6] in the hadronic unified 4x4 metric tensor, we finally proceed to discuss the challenges of how the demands for secrecy of the higher dimensional 28x28 metric tensor for everything demands the use of artificial intelligence and communication technology of the digital age paradigm shift linking

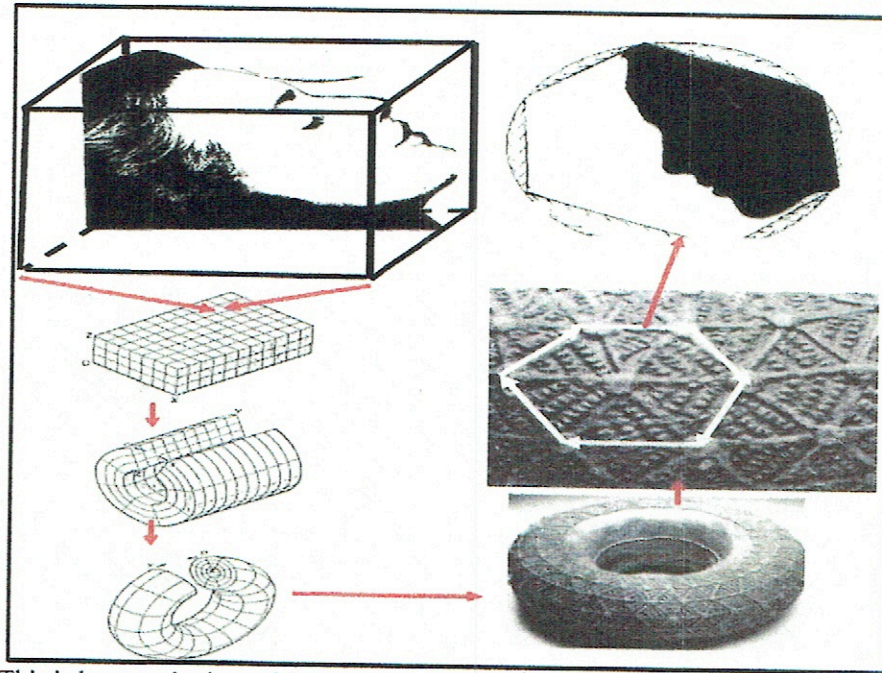
"Environment(149)=N-helix(72)Loops(77)=M-branes(72)Loops(77)=Hadronic(72)Power(77)" to "Hadronic(72)Cat(24) + Stress(100) xBranes(59)" and to End-time(70)Stress(100) on Hadronic Cat(24) consciousness defined by the trace of our 28x28 metric tensor. The famous Schrodinger Cat(24) experiment in which *the cat always responds according to the expectation*

of the observer has led to the conclusion that the cat is conscious and aware of the mind(40)-set(43) ~ wisdom(83) of the observer, and responds in consonance with that mindset as if it has its own "mind" that resides in the "wave(51)field(36)" ~ "the(33)love(54)" associated with the motion of its parts. It is no wonder then that, as illustrated below, a quantum of rhythm energy of breathing is associated with an extended (non-pointlike) living body

"asleep(58)in(23)cubic(38)cell(30)" = "a(1)w(23)w(23)w(23)dot(39)mind(40)"
= "environment(149)" = hadronic(72)power(77)

of a periodic lattice, as displayed below.

The quantum of rhythm energy of breathing of an extended (non-pointlike) living body asleep(58) in a cubic cell of a periodic lattice shown below relates "g-mass(59)" to "branes(59)"



This is because in time of falling asleep in the (top left) cubic cell of a lattice that gets curved under one's weight, (i.e. by gravity), into a curved cylindrical hadronic space (bottom left), one becomes conscious or dreams (top right) of one's spiritual self gone out of a torus (bottom right) whose surface is covered by cells of a reciprocal lattice hexagrams (middle right) as crafted on ancient African (Igbo-Ukwu) bronze "enigmatic tyre" (a torus) from Catherine Acholonu[16], *They Lived Before Adam* p.447 (2009).

We conclude, therefore, that the analogue/digital correlation of SO(10) linguistics and 28x28 metric tensor of hadronic time relativity have given enlightenment in this era of global warming environment the complementarity of love and nano-heat ~ anti-hate and challenges of COVID-19(72) pandemic. It has accordingly strengthened the realization of hadronic power and superpower as predicted in ref.[6] from 4x4 metric tensor of e-magnetodynamics.

5. REFERENCES

- [1] P.A.M. Dirac 1971 Proc. Roy. Soc. 322A, 435 (1971).
- [2] R.M. Santilli 1978 *Hadronic J.* 1, 574
- [3] A. Einstein, B. Podolsky and N. Rosen (EPR), (1935) "Can quantum-mechanical description of physical reality be considered complete?" Phys. Rev., Vol. 47, p. 777 (1935),
www.eprdebates.org/docs/epr-argument.pdf
Nine minutes video on EPR , verifications,
<http://www.world-lecture-series.org/legacy-of-einstein-for-new-clean-energies>
Tutoring Lecture I: Isomathematics
<http://www.world-lecture-series.org/santilli-tutoring-i>
Tutoring Lecture II: Verifications of the EPR argument
<http://www.world-lecture-series.org/santilli-tutoring-ii>
Primary references on recent verifications of the EPR argument
<http://www.santilli-foundation.org/docs/references-epr-verifications.pdf>
- [4] R. M. Santilli & A.O.E. Animalu 2011 *Non-unitary Lie-isotopic & Lie-admissible scattering theory of HM* (2 011); Also Papers I, II, III, IV and V, in the *Proceedings of the Third International Conference on Lie-Admissible Treatments of Irreversible Processes*, C. Corda, Editor, Kathmandu University (2011) published in *Hadronic J.* Vol. 34, Nos.5 & 6 (2011) with the links
<http://www.santilli-foundation.org/docs/Isoscattering-I.pdf>
<http://www.santilli-foundation.org/docs/Isoscattering-II.pdf>
<http://www.santilli-foundation.org/docs/Isoscattering-III.pdf>
- [5] A.O.E. Animalu 2019 -Lie-Admissible Approach to "Extended Relativity": Non-Linear Velocity, Mass and Charge Transformations in *African Journal of Phys.* Vol.12, p.2-27 (2019) [reformatted from *Hadronic J.* Vol.10, 321-330(1987)]
- [6] A.O.E. Animalu, Hadronic Conductivity: A New Form of Superconductivity, *Hadronic J.* Vol.45,333-355(2022)
- [7] Albert Einstein(1879-1955) has been celebrated as "*PERSON OF THE CENTURY*" (in *Time Magazine* Dec. 31, 1999) on the trending (by Brandon Bays www.thejourney.com) Einstein's equation ($\text{Energy} = \text{Love} \times \text{square of speed of light}$) delivered in a Letter to his daughter (Lieseri) in 1938, a year before the outbreak of the 2nd World War date (1/09/1939) released in 1980

- [8] J. Madeleine Nash, Unfinished Symphony p.49 of *"PERSON OF THE CENTURY"* (Time Magazine Dec. 31, 1999) citing Witten on Superstring M-theory(1995) that "M stands for many things including matrix, mystery and magic".
- [9] A.O.E. Animalu and N.C. Animalu, (2020) "Space-time Geometry of a torus for a Lorentz- and Conformal-Invariant String Theory without divergencies", *African J. Phys. Vol.13*, 1-36 (2020).
- [10] P.A.M. Dirac (1970) *Can Equation-of-motion method be used in High Energy Physics?* In Appendix Physics Today April 1970, p. 29.
- [11] A.O.E. Animalu and R.M. Santilli $SO(2N) \times SO(2N)$ group-theoretic approach to scattering of N-particle ($N=5$) systems, <http://doi.org/10.52202/059404-0001>
- [12] A.O.E. Animalu, Nwakanma & Akpojotor (2013) *Afr. J. Physics Vol. 6* 1-18,(2013).
- [13] A.O.E. Animalu, Samuel Edeagu, Godfrey Akpojotor & Erik Trel, Electromagnetism of Atomic Structural Constitution in Deformable Real $R3 \times SO(3)$ Configuration Space, *Afr. J. Phys. 11*, 2 (2018).
- [14] Elizabeth Isichei[13] *A History of the Igbo People*(1976).
- [15] A.O.E. Animalu & A. V. Animalu (2012)*GENO-ASCII Code for Translation of Alphabets into Natural Numbers Equivalents and Geometry* African Journal Of Physics Vol.5, 122-140)(2012).
- [16] C. Acholonu (2009): They Lived Before Adam p.447.
- [17] A.O.E. Animalu, Geno-Bragg's Law, Geno-Higg's Function and 10×10 Representation of $SU(3)$ Symmetry for Quasi-Crystal Structures, *Afr. J. Phys. 4*, 14-42 (2011).

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